THE CLINIQUE.

VOL. VIII.] CHICAGO, OCT. 15, 1887. [No. 10.

Original Lectures.

CONJUNCTIVITIS.

A CLINICAL LECTURE BY C. H. VILAS, M. A., M. D., PROFESSOR OF EYE AND EAR DISEASES. DELIVERED IN THE HAHNEMANN HOSPITAL, CHICAGO.

Conjunctivitis is a disease for which nearly every person, lay or medical, feels competent to advise. In the old Roman time the patient was publicly exposed in the market place, that whoever passed might prescribe. Quite like him the victim of this eye disease so plainly exposes his infirmity that he becomes the recipient of prescriptions from many of his friends and acquaintances, which but too often, though well-meant, cause him loss of sight.

It is true that some forms recover spontaneously, or often are easily cured; in this statement may perhaps be recognized the solution of the fact that many of the remaining ones are so destructive of vision.

I shall spend no time in endeavoring to convince you of the dangerous nature of this disease, for it will become apparent to the most incredulous of you as I proceed. But before giving you examples of its terrible ravages I desire to call your attention to a few statistics. In these will be found the tabulated experience of many men skilled in eye disease.

Of 2,528 cases of blindness examined as to their causes, it was found that of all original causes, loss of sight was most

frequently produced by purulent conjunctivitis of the newly-born, or *ophthalmia neonatorum*, 10.81 per cent being thus brought about; and the next largest by granular and purulent conjunctivitis of the adult, 9.49 per cent. In a competent inspection of the asylums and hospitals of one of our largest cities, in one institution where there were 521 children, 304 were found to be suffering from diseased eyes. There had been no preliminary medical inspection of the children. The dormitories were very crowded and the lavatories defective. In no case was there a separate towel for each child. Eighteen of the youngest children had two quarts of milk a day divided among them.

In another institution, where there were only seventy-six children to care for, seventeen were afflicted with contagious eye disease, and twenty-four others had indications that their eyesight had been affected by overcrowding and a lack of proper breathing space. Among thirty-four of the children were but twelve towels, which were changed three times weekly. The majority of these children go to the public schools, and thus are disseminators of this disease.

In one institution, where 182 children were under the care of the directorate, forty-two had contagious eye disease. These latter were, as in every instance quoted, mingling in constant communication with the healthy children.

Among 752 children in another institution 122 were afflicted with eye disease. In this establishment there were 120 roller towels, which were changed every second day, and which towels were common to the 752 children.

In still another "there are to-day thirty-nine children hopelessly blind, who when they entered had perfect sight. Several of these have a distinct remembrance of being able to read the alphabet."

The following is an extract from a report as to the condition of one of the largest institutions for the care and protection of children. It has the care of more than 2,000 children:

"There were 871 afflicted with this disease, more than forty per cent of the entire inmates. The cases were more fre-

quent among the older inmates, and the longer a child remains at such a place the more liable it is to get the disease. * * * The principal cause is carelessness in admitting children that have diseased eyes and neglect to treat those that are diseased. Of the 871 children examined, and that ought to be treated, not one was properly attended to, nor were they isolated from the rest."

Conjunctivitis, as its name implies, is an inflammation of the conjunctiva, a mucous membrane beginning at the continuation of the integument on the edges of the lids and extending over the lids, and by reflection on to the eye-ball to the *limbus corneæ*. As would be evident by the name, it consists of reticulated connective tissue, mainly composed of connective tissue corpuscles with a fibrous intercellular substance. It is richly supplied with nerves, mainly from the fifth pair, and with blood-vessels.

These vessels are divided into the anterior and posterior, the former supplying the zone near the ocular conjunctiva and the latter the posterior zone of that tissue. The anterior zone is connected with the episcleral vessels.

The arterial vessels are branches of those from the lids and lachrymal glands, and are reinforced by twigs from the angular, temporal and infra-orbital arteries. The veins anastomose with the orbital veins and terminate in the vena angularis and temporal veins. The posterior are connected with the anterior, and the anterior with the ciliary system, thus explaining the "rosy zone of vessels, with suffusion of the conjunctiva" so strongly marked in iritic and ciliary inflammations, and to which your attention has been previously directed.

The classification of conjunctivitis is arbitrary, one form may run into another, but for convenience it may be divided into (a) catarrhal, (b) purulent, (c) granular, (d) diphtheritic and (e) phlyctenular. In general, it may be said that hyperæmia precedes the catarrhal form, and the catarrhal form precedes the purulent. All may be infectious and contagious, endemic or epidemic; the discharge from one form producing its own kind or that of another.

The causes of catarrhal conjunctivitis are so numerous that an enumeration would be tedious. They may be said to be embraced in contagion, exposure, the exanthematous diseases, foreign bodies and injuries of all kinds, and less often ametropia, bad hygiene and over use of the eyes.

It is not difficult to recognize. The subjective symptoms are a sensation of sand in the eye, more or less pronounced with smarting and itching, while objectively the increased vascularity and lachrymation, with sticking together of the lids, especially after sleeping, render the trouble apparent. To these, when the disease has progressed a step farther, are added a mucous or muco-purulent discharge containing whitish flakes of albumen, and epithelial and mucous cells, chemosis more or less pronounced, and red, swollen and stiffened lids. Not infrequently numerous small infra-conjunctival hemorrhages are seen.

Under proper care it is seldom that the cornea becomes involved in this variety, but in the exanthematous diseases care should be taken that the conjunctiva does not become seriously implicated. Sometimes it does unless watched, and hurrying into the purulent form, involves the cornea, and damages or ruins the sight. This result is not infrequent in variola.

Extreme care as to cleanliness and isolation of all towels, basins, etc., should be observed, as many cases are violently contagious.

If the inflammation is due to ametropia the refraction should be corrected by suitable glasses. If no cause is apparent, examine carefully for any local irritation, as from a foreign body, any inturning lashes, etc.

When the disease is fully established, insist on extreme cleanliness always. Cold applications may be used in the primary stages, with protection to the eyes. Mild, astringent lotions should be employed when necessary. Corneal and iritic complications may require atropine. All of these remedies you have frequently seen used in the treatment of these diseases in the sub-clinic room.

Tonic treatment must not be neglected if the patient is

at all run down in general health. The disease is usually local, however, rendering such unnecessary.

The chief causes of the purulent form of inflammation of the conjunctiva are the same as in the catarrhal form, but greatly intensified. The discharge is purulent, thick and highly contagious, the conjunctiva highly swollen, and often great chemosis supervenes.

There is great danger of the cornea becoming involved, causing ulceration, sloughing, and not infrequently the loss of the eye. The corneal dangers and their treatment should be carefully studied, as I explained in my lecture on keratitis.* The gonorrhœal variety of conjunctivitis is usually very severe and shows a great tendency to constitutional symptoms, which often are extremely severe, on its inception. Ophthalmia neonatorum, may be very mild or very severe, and should be at once checked.

No disease requires greater judgment or a more careful diagnosis than purulent conjunctivitis. Extreme cleanliness is always necessary. This is best accomplished by removing the discharge with small pledgets of folded cotton cloth. It is not best to allow the palpebral syringe to be used except by the experienced, as it is difficult to control the danger of infection.

When the discharge has not set in, the conjunctiva being tense, hot and dry, soothing applications should be employed, such as atropine, and the way carefully felt. When the discharge is fully established, an astringent lotion every few hours may be used, or it may be necessary to paint the inner surface of the lids once or twice daily with a strong solution of silver nitrate, or other similar remedy. If the cornea becomes cloudy, atropine must be used. Canthoplasty may be performed if the lids press too closely on the globe.

The non-affected eye should be carefully sealed up, if necessary; in any event the greatest caution should be used that the disease is not communicated to it. Cool, or even iced, applications may be demanded in severe cases.

In ophthalmia neonatorum, in addition to extreme cleanli-

*Reported in THE CLINIQUE, for November, 1882, Vol. III, p. 375.

ness, one drop of a one-grain solution of silver nitrate should be dropped between the lids, night and morning, and a powder of argentum nitricum 30x, given every three hours internally. Such treatment will cure all cases, if taken in time. A weak solution of atropia sulphate may be used if the cornea becomes cloudy. There is no need of bad results, except in the rarest of cases.

As this disease often greatly drains the system, and the gonorrhœal variety particularly so, the strength should be kept up. The room should be disinfected, and everything in use subjected to a similar treatment.

The granular form of inflammation of the conjunctiva has been known under many names, and been a great bane to the world. The chief causes are catarrhal and purulent conjunctivitis, filth, impure air, and defective hygiene generally. Contagion, perhaps, is the greatest cause of the disease as ordinarily seen.

Locally this trouble is characterized by hyperæmia, swelling, and a peculiar roughness of the palpebral conjunctiva. These changes may be noticed as diffuse, vascular excrescences in the conjunctival tissue, resembling roundish granules; or as hypertrophied papillæ. The former is called "granular trachoma;" the latter, "papillary trachoma;" occurring together, as they most often do, "mixed trachoma." There may be a discharge, at first thin and watery, gradually becoming thicker and of a muco-purulent character; or the disease may steal on so insidiously as to be established before really suspected. In the latter case the patient generally previously complains of the lids sticking together in the morning, with some roughness. When either acute, or established, the eyes are very irritable, accompanied by a sensation of sand, especially under the upper lid, and they become red and watery on attempting to use them. After a short time the lids become puffy, more or less flabby, and limp. All symptoms vary greatly in severity according to the nature of the attack.

Granular conjunctivitis is contagious, often highly so, and all towels, utensils, etc., should be carefully isolated to prevent the danger of contagion.

The disease shows great tendency to relapses, acute exacerbations being common. It is often complicated with other diseases. The greatest danger lies in the injury to the cornea. The rough, sand-paper like lids irritate the cornea, promoting vascularity and pannus, or the cornea may ulcerate. The conjunctiva may also become chronically dry (xerophthalmia), the lids be drawn inward at the margin (entropion), the lashes turn in (trichiasis), or the lid or lids become firmly adherent to the globe (symblepharon). Either of the latter troubles is more likely to be the result of injudicious treatment, however.

Nearly always, general complaints accompany or have originated this trouble. It is particularly associated with the badly nourished; with high, free livers, who crowd their stomachs, drink hot, stimulating drinks, remain in smoky rooms, or heated, close atmosphere, and take insufficient exercise. The mind is apt to partake of the bodily weakness in old, advanced cases, and the patient become addicted to lazy, indolent habits.

The local treatment is all important, but injudiciously done, it does harm rather than good. In severe cases astringents are necessary, but caustics seldom are. Primary cases and exacerbations are better met by internal remedies. Ice-bags in severe, acute attacks, or exacerbations of old chronic ones are highly recommended. A crayon of finely pointed copper sulphate may be used by the experienced, but is not recommended for indiscriminate use. As often used, or when given to the patient, much harm results. Tannic acid, six to ten grains, and glycerine, one ounce, is a prescription that in old, indolent cases, may be highly recommended. Silver nitrate, properly used is the most reliable irritant, however, and will generally prove all-sufficient. All of these forms of treatment will be explained and illustrated from time to time in the sub-clinic.

All exciting causes should be removed, and general bathing with friction employed; good food, air, and exercise, and healthy, useful employment, should be insisted on.

The diphtheritic form of inflammation of the conjunctiva

occurs in the course of diphtheria, and results from the same causes as do the other forms. It is extremely rare in this country, and only appears in a comparatively mild form. A yellow, tough and firm product of inflammation collects in the tissue of the conjunctiva and on its surface, from which it may often be torn off like a thick lining of the lids. There are usually the symptoms of intense inflammation in the first stages, with great tenderness to the touch, the lids being hardened by a fibrinous infiltration. The symptoms vary much in nature according to the severity of the case, but generally are severe at first. The lids grow soft as the disease advances, and pus supervenes.

The lids are often rigid and seemingly fibrinous in the other varieties, and consequently errors in diagnosis are made. The greatest danger is to the cornea, which is apt to suffer severely, and the lids to become cicatrized. The constitutional symptoms are usually marked, and easily diagnosticated.

The treatment is not very satisfactory. Locally ice compresses may be used in the first stages, and the treatment of purulent conjunctivitis employed when pus sets in. The strength should be supported, and the case treated much as a case of diphtheria of the general system, with which trouble this is usually associated.

Phlyctenular inflammation of the conjunctiva is characterized by small, yellowish-red, nodules on the conjunctiva, and is often associated with, and in many respects similar to, pustular keratitis. It requires the same treatment.

A pterygium, or bat's wing, is usually caused by exposure to hot winds, such as the winds of the sea, of the prairies, etc. It is often sequent to chronic inflammations of the conjunctiva.

A pterygium is a triangular vascular ridge of hypertrophied conjunctival and subconjunctival tissue, usually on the nasal side of the eye, with the base toward the canthus, and the apex adjacent to, or more or less on, the cornea. It is often confounded with a pinguecula, which is an epithelial tumor, or due to micro-organism parasites, with a deposit of fat.

If remedies are unavailing, and it persistently encroaches on the cornea, excision, ligation or transplantation must be employed to remove it.

Among the internal remedies we shall find aconitum napellus valuable in all the forms of conjunctivitis in the early stages. It is particularly valuable in those cases which begin with much local fever and heat, where it is necessary to quickly break up this condition. In the first stage of catarrhal inflammation, when severe, or when there is a sensation of local heat, it is always indicated.

In acute exacerbation of chronic granulated lids it is also indicated.

It is of little value, however, when once the second stages have set in, or when the boundary is passed in the catarrhal form, and the purulent form has set in.

To subdue local inflammation after a hot cinder, or other foreign body, has been removed, it will be of value in conjunction with local remedies. The latter, however, will generally render it unnecessary.

Apis mellifica is a valuable remedy when the lids are swollen and stinging, with a general œdematous condition. The parts have that peculiar appearance as if a bee had stung them.

Its general symptoms may often suggest the remedy also, such as drowsiness, absence of thirst, etc. Chemosis yields to it.

Argentum nitricum has long enjoyed the reputation of locally curing the purulent forms, no matter what their cause.

Naturally it would seem to be an excellent remedy internally, and such it proves to be. Combined with *judicious* local treatment, it will exceedingly rarely be necessary for sight to be lost, even in part.

It is useful in the first stages only of the granular forms.

Pterygium has been reported cured by the administration of this drug.

Arsenicum is useful in the first stages of the catarrhal and granular forms, and the various stages of the pustu-

lar form, when there are burning pains, especially at night.

Periodicity of attack, and alternate shifting from one eye to the other also indicate its use.

Belladonna is useful in the first stages of conjunctivitis, that is in the precedent hyperæmia and catarrhal forms, but is of no use when the purulent form has set in.

In the early stages it will meet such symptoms as smarting and burning pains with dryness and heat, and marked photophobia. Often the face is red and swollen, with headache.

Acute attacks in chronic cases may demand this remedy.

Calcarea carbonica has been used for the relief of pterygium.

Euphrasia finds in the conjunctival troubles an appropriate sphere of action.

When called for, there is profuse, acrid burning lachrymation, thick, profuse and yellow discharge, which runs down on and excoriates the cheek. Owing to the presence of this discharge on the cornea vision is more or less impeded, but relieved by the act of winking, which washes down the obstructing secretion.

It must not be depended on in the purulent form, however, as it will seldom be of sufficient power to bring about a healthy resolution. More especially is this the case if the cornea is threatening suppuration.

Graphites is not a very useful remedy in any of the conjunctival forms but the pustular.

When the external canthi crack and bleed easily, and eczematous eruptions appear behind the ears, the discharges being thin and excoriating, the nose participating, with a general scabby condition, and dry scurfs, with a decided tendency to recur, its use will be strongly demanded.

Hepar sulphuris must always be thought of when, in the purulent form, the cornea has become implicated, and there is a strong suppurative tendency or suppuration has actually set in.

It may be useful where there is a muco-purulent discharge.

Ipecacuanha is an admirable remedy for the pustular form of conjunctivitis.

Mercurius is a valuable remedy.

Special indications are found in the profuse, burning, muco-purulent discharges. They are thin, acrid and excoriating.

Syphilitic subjects particularly require its use, and the well-known train of symptoms classed under this name will guide in its selection.

The remedy has doubtless been much overrated and abused in this class of troubles.

Nitric acid may be used in gonorrhœal ophthalmia, in conjunction with local treatment.

Pulsatilla nigricans is a valuable remedy in almost all forms of conjunctivitis.

In the catarrhal form when occurring in the characteristic subject, with a bland thick discharge, it is indicated, and especially in this form resulting from an attack of the measles, or from taking cold.

In the purulent form, and especially in that kind found in the newly-born, it may be used. It should not usually be alone relied on, however.

In the phlyctenular form it is valuable.

In the trachomatous form, feebly so. When the lids are implicated it is often very useful.

The general characteristics, "worse in a warm room, better in the open air," often serve as a marked guide for its selection.

Rhus toxicodendron is valuable when the inflammation is caused by exposure to the wet, with an œdematous swelling of the lids.

Intense photophobia and profuse lachrymation in the phlyctenular form call for this drug when conium is not indicated for the special reasons I laid down under its head in keratitis.

Sulphur is the remedy for certain forms of, and conditions associated with, phlyctenular conjunctivitis.

Agglutination in the morning, marked photophobia and profuse lachrymation, burning and biting in the eye, with sharp lancinating pains, are indications for its use.

Chronic, scabby cases, occurring in scrofulous children, will be much benefited by its administration intercurrently with other remedies.

Zincum metallicum is said to have cured pterygium.

Clinical Society Transactions.

JOSEPH P. COBB, M. D., SECRETARY.

The regular monthly meeting was held in Club Room No. 4, of the Grand Pacific Hotel, Saturday evening, October 1. Dr. George F. Shears, President, in the chair.

REPORT OF THE BUREAU OF CLINICAL HYGIENE.

DR. J. E. GILMAN, CHAIRMAN.

I.—THE LAKESIDE SUMMER SANITARIUM.—BY DR. J. E. GILMAN.—The ignorance and carelessness of mothers and nurses furnish a sad series of statistics for the contemplation of the Sanitarian. When we read that fifty per cent of all the children born die before reaching the age of five years (one half of infantile existence crushed out and extinguished), it may well lead us to stop and inquire into the causes of such a mortality.

In making the inquiry we find that disorders of the digestive system furnish about forty-one per cent of the deaths from all causes during the first year of life, and the deaths from other causes very often have this for a prominent factor.

A feeble vitality, by proper care and nutrition, may develop into a sound and solid strength that will enable the child to resist the invasion of disease in the years following, while on the contrary, this neglected, the child is illy fitted to make much of a struggle against the diseases which it may meet. Therefore we can readily understand that the first and most important steps to take to reduce infant mortality must be in the direction of the nutrition and care of the babe, and the object of this paper is to make a statement of what has been done in this direction in one of the noblest of Chicago's charities,

The Lakeside Summer Sanitarium.—In the year 1873 a little corterie of ladies was in the habit of meeting at each

other's houses for social and literary purposes. The meetings were held each week, and the weekly dues of 25 cents were donated to the purchase of food and necessaries for infants among the poorer classes. Among these ladies Mrs. Benjamin Shoeneman was prominent; and most of her time was devoted to visiting and caring for the neglected little ones. Attending the child of a laboring man given up by the doctor to die she succeeded in nursing it back to life, and one day returning from her ministration of mercy, she met Dr. Ernest Schmidt near her own house. She said to him, "Doctor tell me what can I do that will be of the most service to the sick and suffering babies?" The doctor's reply was "get them out on the lake front where they can get pure air." There was on Twenty-fifth Street opposite where they were standing a large vacant lot owned by Mr. Walker in which some horses were pastured. At once the plan flashed through her mind. The same morning she saw the owner of the lot and pleaded her cause so well that permission was given to use it for the required purpose. The railroad exposition was just closed and going to the grounds she purchased one of the wooden sheds that had been erected there and the next day, the 10th of July, had it moved to the lakeside lot, and on the 21st day of July, 1883, the Sanitarium was opened, and the babies were brought in.

Knowing the general ignorance of the mothers, one part of her plan was to educate them in the way of how to take care of their children so that the good influences of the Sanitarium should not cease with the actual day's occupancy. So she made of it a school as well as a hospital. Teaching the best methods of preparing the foods used, the selections of proper foods and inculcating habits of cleanliness, overcoming prejudice and habit by her tact and earnestness, and compelling, by counsel and example, the change from previous method to the better order of things as exhibited to them there. During the first year about 400 children enjoyed the benefits of this charity.

As each infant came to the place it was examined by a doctor to see that no contagious disease was admitted. It was

then given a drink of water; bathed if needed, given something to eat or a bottle of prepared food and then placed in a hammock to sleep. The change from the hot air of the crowded tenement houses to the cool shade of the Sanitarium, with the refreshing air from the lake and the luxurious cradle of a swinging hammock, would be followed almost invariably by a refreshing sleep and a beneficial modification in the bettered ability to manage the judiciously given food. Out of heated attics and poorly ventilated apartments to this quiet and salubrious place the variation was as great as though the child was transported to the country, and in most instances the alteration in the character and qualilty of the food given was equally great, and the mothers could not fail to see the immediate results in the rapid change for the better. The lessened fretfulness and the better assimilation of the food.

The Sanitarium was closed on the 15th of September and reopened the following year on the 1st of July. In 1884 there were about 700 children admitted; in 1885 between 800 and 900, while in 1886 the frail structure was wrecked by storms and so cut short its usefulness for the season. Many of you may remember the time when this accident occurred; fortunately no one was injured, all of the occupants being taken out in time, although there were some narrow escapes, enough to remind one of the proverb of a special Providence that watches over children. Nothing daunted by the misfortune, and full of energy, Mrs. Shoeneman went to work earnestly, and soon gained the funds to build a much more substantial structure than the first, and with its enlarged area also increased greatly its conveniences and facilities for the work. Four bath tubs for the babies and two for the mothers were put in. The kitchen was improved and sixty hammocks were hung up, and additional space for the baby carriages, etc., was secured. During the existence of the institution a record book has been kept, in which has been registered the age, name and address of each child, or of its parents, with occasional remarks, if there was anything of importance in the case or its conclusion to note, so that the case of each visitor that has enjoyed the hospitalities of the institution

could be looked up. This record shows that all portions of the city have shared in the benefaction. Babies from the west, the north and south sides of the city, even from the extremes, from Lake View and the outskirts of the west and south have flocked there, so that during the present year, now closed, some 2,000 children were cared for during the hot weather. In the month of July there were 1,256 registered. Out of this 2,000 there were less than fifty that died, and when you consider that these were all sick babies, and not only so but many of them very ill, with this as the last hope for life, the magnitude of the benefit can not well be overestimated.

The expense of supporting such an institution is very considerable, and this has been met by contributions. The *Daily News* took the matter up this year, and made a valuable addition to the fund, and private contributions completed the amount needed. Day after day, from early morning till late at night, Mrs. Shoeneman has attended the place, superintending, advising, planning and directing with a tireless energy, and overflowing with satisfaction at the result of her benevolent enterprise. While her society friends and family have taken summer trips to Europe, the seaside or some watering-place, she has worked as unceasingly in the cause of humanity as though each infant was her own kindred and near and dear to her, and the pleasure of doing for others in need is all her remuneration, and her entire recreation.

Her experience in the results of the use of different kinds of food for infants is a valuable one for record. The ages of the children coming to the Sanitarium is from four weeks to about two years of age, the large proportion being under a year. Most of these are babies that are fed on artificial food. She does not approve of milk given alone or simply diluted with water, for these weakened digestions, and while milk must enter into the composition of the food to some considerable extent, it is given in such form as to be easily managed, and only to the larger children is it given pure and simple. Fairchild's peptonized food she has found an admirable preparation. Rice water, graham water, Nestle's & Ridge's food

in water, beef extract or some of the peptonized preparations with a little of the beef extract used in place of the milk. For the very weak ones one or two drops of brandy may be added once or twice with benefit; this put in some of Valentine's beef extract. Water, white of egg and a little salt have been often used. For the older ones beef, rye soup with bread is very satisfactory.

As a general thing the babies that have been brought to this place have been made ill by a course of feeding on milk until the stomach will not manage it, and the radical change indicated above is made more necessary than in ordinary cases where the digestion is not already disturbed and weakened. A continuance in the milk feeding in the majority of the cases coming to the Sanitarium could only result in still further lessening the ability to manage the food, and finally serve to swell the mortality records.

It has been necessary this summer to permit some cases to remain in the institution over night, as there were many cases presented too ill to dare the risk of a night in less comfortable surroundings. Of course the greater proportion of cases come in the morning and return home at night. With as heated a summer as has passed over us this season the benefit of the Lake Side Sanitarium has been very marked, and it is to be hoped that its usefulness will be more largely extended in the future, and its patroness and president be spared many years longer to continue her humane labors.

Discussion.—Dr. J. D. Craig—Judging from the report of this evening, and from that presented here last month, cow's milk is not a favorite food for city babies. In the country I found it far different; there, cow's milk was my mainstay. I prepared it for the infant according to Dr. Cumming's schedule, viz.: allow the milk to stand two or three hours in a cool place; take the upper third of the milk; add to it water in amounts varying with the age of the child, and sugar, preferably the sugar of milk. I have found that small cows of the Alderney or Devonshire stock furnish the best milk for children. Cleanliness and fresh air are imperative. I have often observed that if babies are taken out to ride in

the shade, the gentle motion of rolling them along aids to control the diarrhœa.

Dr. W. E. Reed—To me the paper has been very interesting, especially that part referring to cow's milk as an infants' food. The importance of fresh air can not be overrated. In my experience at the seashore, I have seen babies from the city recuperate wonderfully by reason of the change from city to seaside. I am glad to know that Chicago has such a Sanitarium and believe it should be encouraged by all possible means.

Dr. J. B. S. King—I think I can improve upon Dr. Craig's formula for preparing cow's milk for infants' food. The following formula is simple, easily followed, and scientifically accurate:

Allow one-third of a pint of cow's milk to stand in a cool place until the cream rises to the surface; skim off the cream and add to it two-thirds of a pint of milk fresh from the cow; add a piece of rennet to the skimmed milk and warm until the caseine is separated; strain, and in the hot whey dissolve 110 grains of sugar of milk. Add the sweetened whey to the original two-thirds of mixed cream and milk.

Dr. J. E. Gilman—This formula may be improved by adding a little oatmeal water to the food. The mother's milk curdles in fine flakes; the cow's milk forms solid masses of curds that are difficult of removal. The object of the oatmeal is to disintegrate mechanically the solid curds so that it will in this respect imitate the mother's milk. The child may not be able to digest any of the oatmeal any more than it would sawdust, but it is for its mechanical effect that it is used.

Dr. George F. Shears—Why vary the amount of water to be added to the milk for children of different ages? Is there such a variation in mother's milk?

Dr. J. E. Gilman—In answer to Dr. Shears, the mother's milk does not make any very great change; certainly not so much as the variation in dilution of the cow's milk, but the change is made as a means of lessening the work of the stomach at first, and afterward the strength increased as it is supposed, the stomach is able to care for it.

Dr. Jos. P. Cobb—I have listened to the essay of the evening with great interest, and can testify to Mrs. Shoeneman's disinterested zeal. The results obtained at the Lakeside Summer Sanitarium also bear witness to her appreciation of fresh air, proper food, and intelligent care in the management of infants and children.

Dr. Craig's reference to gentle motion in the open air for infants suffering with diarrhœa calls to my mind the recommendation of a Canadian physician. He directed his patients suffering with diarrhœa or dysentery to ride continuously for several hours in a street-car over the roughest track in town. He reasoned that the continual jolting would arrest the excessive peristaltic action, and claimed that the experiment was invariably successful.

Dr. W. E. Reed—A homœopathic cure, surely!

Dr. J. E. Gilman—It was the aim of my paper to emphasize the methods of attending to the needs of babies that were sick; to call attention to other methods of feeding that could be used when the ordinary method of feeding with cow's milk was exhausted, and those children were as a rule of this class—they had been fed upon cow's milk until the stomach refused to digest it, and it became a foreign body then. In feeding children artificially we can have no certain rule to determine the kind of food best suited to them, and I know of no way of ascertaining this except to make a trial of different kinds one after another until we find one that does agree. As a general thing a child will object to a food that is not likely to assimilate, and will only taste it under the pressure of hunger. If it does not show signs of liking it after one or two trials it is a good idea to pass to another kind and try that until we find one that is satisfactory to the infant's taste. Then we are pretty sure to be on the right track.

No matter how much we may theorize, we can not say in advance that any certain food is going to agree with any special case. The food may be chemically and theoretically the very best thing that could be used for the proper development of the child, but on trial it is of little more use than a diet of sawdust. The child does not digest it, and something else not so good by far in theory may be taken and relished.

II. An important hint in testing for albumen—By Dr. J. B. S. King.—Anyone who has tested a great many specimens of urine for albumen, can not have failed to observe certain difference in the physical characters of the precipitate, as well as in the reliability of certain tests when applied to different specimens of albuminous urine. Thus it has not infrequently happened in my experience, that a certain specimen would show albumen with one test and not with another, and in another specimen these conditions would be exactly reversed. I have seen urine, highly albuminous according to Heller's test, remain perfectly clear when acidulated with nitric acid and boiled, owing to the accidental formation of an acid albumen. Occasionally, when Heller's test showed nothing, the nitro-magnesian test has proved albumen to be present. From observing these and similar other facts I was gradually led to believe that albuminous urine was a subject that needed investigation, and had about made up my mind to do it, when the question was settled by another. In a recent work of M. Jaccoud, quoted by Lucas Champonniere, it is maintained that there are three abnormal kinds of albumen found in urine.

1st. Serine, identical with the albumen found in the blood serum.

2d. The numerous family of globulins, as paralbumen, metalbumen, paraglobulin.

3d. The peptones.

Of these the first is the most distinctly pathological, and is the albumen of Bright's Disease. It is the only albumen related to kidney disease. The important point is that the second group, although not depending upon lesions of the kidney, are still precipitated by the ordinary tests used for the discovery of albumen in the urine. Hence they may lead one to believe in renal lesions which do not exist, or if present at the same time with serine, lead one to believe that the renal lesions are more serious than the reality.

The third class, the peptones, are not precipitated by the ordinary albumen tests with the single exception of picric acid, a fact which is fortunately very generally known.

The globulin and its congeners when present alone, pre-

cipitate more slowly than serine, and however abundant they may be, they are never flocculent.

These physical characters may serve to distinguish them apart, but it is not probable that they will be found sufficient for ordinary clinical testing. It is therefore a satisfaction to know that by adding an equal volume of a saturated solution of magnesian sulphate to the urine, and allowing the mixture to stand for twenty-four hours, the whole of the second class will be precipitated. They can then be filtered off and the clear filtrate tested for the much more pathologically important serine.

It is worthy of notice too, that the second class of albumens may be present in comparatively abundant quantity without diminishing the urea, while it may be put down as a clinical rule that the albumen of kidney lesions is always accompanied by a diminished quantity of urea, the latter constituting the most formidable danger to the patient. Since my attention was attracted to these points I have twice found urine which contained albumen according to Heller's test, but which, after being treated by the magnesian sulphate solution, gave no evidence of albumen by any test. One of these was passed by one of 103 applicants for life insurance when examined, and was clearly traced to a heavy meal eaten late the preceding night. In twenty-four hours there was no albumen of any kind in his urine. The other was passed by one of my patients afflicted with liver indigestion.

Discussion.—Dr. J. E. Gilman—Do the different forms of albumen have any relation to the different forms of Bright's disease?

Dr. J. B. S. King—No. Serine is the only form of albumen which has any connection with Bright's Disease.

Dr. Gilman—A physician, who was also medical examiner for a life insurance company, told me of a case where a man passed urine, the sp. gr. of which was 1.000; an hour or two previously he had drunk both beer and gin. He was sent home. The next day the sp. gr. of his urine was 1.012; later it became normal. I would like to ask Dr. King if he has met with a similar case?

Dr. King—Alcohol is eliminated through the kidneys, and if taken on an empty stomach it might be eliminated in sufficient quantity to lower the sp. gr. of the urine.

I once examined a man whose urine gave a sp. gr. of 1.006. On the following day it was 1.008. On questioning the applicant I learned that he was a vegetarian and drank large quantities of water, and after consideration I passed him.

A student, who was also a graduate, once brought me a specimen of his urine, the sp. gr. of which was 1.002. He had drunk a large amount of beer the night before. Later the sp. gr. became normal.

III. Tabes mesenterica in triplets.—By Dr. W. A. Barker.—The report which I have to make to the Society is one of complete failure, both in the affiliation of an efficient remedy and in the selection of a suitable food. The cases, triplets, born November 9, 1886, came into my hands from those of an experienced homœopathic physician, two weeks ago this morning. They had been ailing with what the previous attendant called "summer complaint," and which he had assured the parents would disappear with the warm weather, for over two months.

I found them extremely emaciated. The skin was dry, and their faces had an old, pinched look. They were consuming large quantities of Ridge's food, from which they were receiving no nourishment, but were steadily growing thinner. They cried almost constantly, day and night, and were always hungry. There was no vomiting, but the bowels were very much deranged, there being from eight to fifteen or more passages a day, which were thin, green and slimy, and of an "old" and very offensive odor. Their mouths were full of aphthæ, and each had a loose cough. Their abdomens were distended and tympanitic, and the integument which could be pinched up in great folds, was very inelastic. There was a subnormal temperature and a varying pulse. My diagnosis was tabes mesenterica, and my prognosis grave.

I stopped the Ridge's food, and for one day gave them nothing but acorn cocoa, and was very careful to have the

bottle kept clean and sweet. This had no effect on the passages, except to change them to the home color of the food. Then Carnrick's soluble food, "beef a la mode," the top part of the milk from their own cow, skimmed off after standing four hours, diluted and sweetened, and Murdock's liquid food were used, and remedies from aloes to sulphur, including ars., calc. carb., cham., hepar sulph., merc., muriatic, nitric and phosphoric acid and podophyllin, all to no effect. The largest girl died, the night of the fourth day after I took the cases, in a hydrocephaloid condition. The accumulation of serum in the ventricles, and the coma, came on about twenty hours before death, and were accompanied with a gradual and progressive rise in the temperature. The other girl died three days after of asthma, the skin of the abdomen, chest and back having, for several days, had a peculiar blue appearance from a congestion of the venous capillaries, which the parents feared was "mortification."

The boy, Grover by name, is still alive, but his condition is unchanged. His lips and mouth are so sore that they bleed upon the slightest touch. The passages are frequent, thin, green and offensive, with some colic and tenesmus. He is having Carnrick's food, with 15 drops of Murdock's liquid food to each preparation; one teaspoonful of Phillip's emulsion of cod liver oil, with pancreatine, three times per day, also by inunction, and cham. and podoph. as remedies. Do the members of the society agree with me as to diagnosis, and can they suggest any thing in the way of an aliment or remedy that they think will be of any benefit to the little fellow.

[NOTE.—The day following the meeting of the Society the bottle was taken away from the baby, and Murdock's food, in water and diluted cream given in small quantites every hour, and, at the suggestion of one of the members of the Society, Cal. phos. 6x and nat. sulph. 6x were prescribed. Grover died Monday morning at 5 A. M. without developing any new symptoms, as the attendants expressed it "he just stopped breathing."]

IV. A peculiar case.—By J. W. Cutler, M. D., of Platteville, Wis.—*Case*—Mrs. P———, aged twenty-six, married, wife of a farmer; very thin in flesh; a dark, sallow complexion; tall and slim figure; the mother of three living children, the youngest being eighteen months old; came for counsel on August 17. She had been under treatment for about seven years by physicians of the old persuasion, without cure or improvement. She complained that about one month after her first confinement her monthly period occurred and lasted two days, and just ten days after the close of that period the veins of the entire system became engorged and would stand out over the dorsal surfaces of the hands and feet like whip-cords. The large veins of the thighs were readily observed to be full, almost to bursting. Accompanying this condition there was severe backaches and headaches, which at times produced delirium. The bowels were closed up. After one day of such an experience a hemorrhage from the bladder occurred, lasting about one day with occasional remissions, and with this all the above symptoms disappeared, and she was comfortable for another month. Such an experience has occurred with a peculiar regularity, almost incredible as to time, for about seven years. She says that the blood appeared to clot in the bladder sometimes, and her doctor would have to help her with some medicine.

"What is it?" asks the patient—an answer to the question she had sought for so many years, but in vain.

Hemorrhoids of the bladder—I could think of nothing else, and am not certain of being correct in my diagnosis, for this is the first and only case of the kind that I ever saw, read or heard tell of. I sought for the remedy and found it to be *Cantharis*. Cantharis 3 was accordingly given twice daily—also one injection into bladder of Ergot (Squibb's) 1 3 in one-half cup warm water. I gave this injection for no other reason than that I had used it with Nitric acid for piles with marked results (used in capsules at bed time in the rectum).

I pursued this prescription for one week. The patient escaped the trouble complained of, and returned to give thanks. Now the prescription was *Canth. 6*, twice daily, at 10 A. M.

and 4 P. M. Also a tonic of Ferri Phos. and Quinine three times daily before meals.

Another month has elapsed and no sign of any of the symptoms.

She says (on the 21st of September): "I am cured."

She paid her bill and went her way rejoicing.

May I ask "What was it?" Did you ever see anything like it? I never saw a more decided and marked improvement in the general condition of a patient during a month's treatment than in this one.

V. Abortion with twins—retained placentæ—intra-uterine injections—recovery.—By Dr. H. D. Steinhaus. *Case.*—Mrs. B——, aged thirty-five and a half years, the mother of six children, had nursed her last baby until it was sixteen months old. She had menstruated a few times since its birth, but not for two months prior to her present illness. She did not suppose herself to be pregnant again. The day previous to my being called she had been engaged with her household duties, and, it being washing day, had busied herself in the afternoon with hanging some clothes out to dry. September 1 I was called to her at 4 o'clock in the morning. She had already been delivered of twins which must have been of from three to four months' development. This accident had happened with very little pain and suffering on her part. She had had a pretty free watery flow, but almost no hemorrhage. The after-pains were very slight indeed, and there was absolutely nothing in the way of an expulsive effort.

I tried at once to remove the placenta, but it was too adherent, and could not be detached. The next day I tried again, but still it would not come. The cords were so thin and slender that it would not do to pull upon them. There was a slight lochial discharge, but no hemorrhage. The effort to remove the placenta was made a third time and a fourth, but ineffectually. On the fourth day, however, the first placenta was found to be loosened, and was easily removed. The temperature was 101° to 102°, and the pulse 115.

On the fifth day she complained of a tearing, burning pain in the head, and in the evening her temperature rose to 105°, and the pulse to 135. The lochial discharge was very offensive, for the relief of which injections of warm carbolized water were thrown directly into the womb four times per day. These intra-uterine injections were all administered by myself, without any untoward symptoms, and always brought relief and a lower temperature.

On the afternoon of the sixth day Prof. Ludlam saw her with me in consultation. He made a long and faithful effort with the Loomis forceps and the placental crotchet to remove the remaining afterbirth, but finally decided that it was so adherent, and so grown into the uterine tissues that it was prudent to desist, and best to leave it to detach itself. There was no hemorrhage and no uterine contractions of an expulsive character. The injections were ordered to be continued, and she took *Ergot*, of the extract of which a teaspoonful had been put into half a glass of water, the dose being a teaspoonful every half hour for two hours. That night, and for the first time, she began to have slight expulsive pains and a little hemorrhage. Later on she took *Caulophyllin 3*.

The injections were absolutely necessary as an antiseptic precaution, and they were continued until the tenth day, which was two days after the second placenta had come away spontaneously. After beginning their use the patient's temperature did not again reach 105°, but gradually descended, with daily variations, until it reached the normal two or three days after the second placenta had come away.

The patient was a German woman, and had never had anything like an adherent placenta with her previous labors. On the fifth day, when she had the very severe and almost crazy headache, and the temperature was the highest, she had slight rigors, with a chilly feeling over the whole body, but this symptom was not repeated in any marked degree afterward. The whole affair occurred during our very hottest weather. She made a good recovery, without any relapse, and is now well again.

VI. Electricity in hystero-epilepsy.—By Dr. Sara E. Bacon.—*Case.*—In July last I was called to see Lucy D., æt. twenty-four, unmarried. Her mother told me that she had ceased to menstruate six months before, and that now she was sick in bed, and helpless as a babe. The appetite was good, the bowels constipated, not moving for a week except by the use of cathartics. The pulse was 110, the temperature normal, and the hands and feet were cold and clammy. I noticed nothing strange about her, except that, after showing me her tongue she kept it protruded until told to put it back, and then the mouth remained wide open.

Upon taking the mother aside I received the following history of the case: For nearly a year the menses had been irregular, and six months previous had ceased entirely. Shortly after this, while ironing, she had fallen to the floor unconsciously, frothed at the mouth, and as she came out of the fit laughed and cried, and in some of the attacks (for she had several) she became violent, so that they tied her to the bed to prevent her from hurting herself. Her mind had not been right since the first attack, and seemed to be growing worse. Two weeks previous to my visit she had been very violent for a few days, then for three days she remained utterly passive in bed, not moving or speaking, with no action of the bowels or bladder, taking food meanwhile only as it was placed in her mouth.

The mother who supported the family by washing, was completely discouraged, for some one had to remain by her daughter, as she was liable at any moment to get up and break the dishes or do anything that her fancy dictated. She said if I thought I could not help her to say so, for the doctors had told her that she could not be cured. I directed her to get the patient up in the morning, dress, and have her eat with the family at the table; to lie down only through the day when she seemed tired, to have her assist with the housework, to keep her mind as active as possible, and to take *Ferrum phos. 3*, a powder of *Nux vomica 3* at night, and report in three days. She did so, saying that the patient seemed stronger, and had had a natural movement of the bowels.

I continued these remedies and gave daily treatment at my office with electricity. When she first came she seemed like a walking automaton; there was no expression in her face, and she did not know how to dress herself. In testing her susceptibility I placed an electrode in each hand, and in using the Faradic current it made no impression until the secondary full strength was used, and then it seemed to give no pain, but as the fingers contracted she laughed and said "how funny my hands act."

In the treatment I placed a negative electrode over each ovary by means of a bifurcated cord, with the positive mostly in the lumbar and sacral regions. She gained very fast, especially in her mind which seemed to grow brighter. At the end of two weeks her menses returned, and at the end of the third week she said she felt as well as ever she did. I advised her to continue the treatment at longer intervals until after the next menstrual period. Now, after two months, she reports that, although she is sometimes a little bewildered, she is well in every respect. She has had no return of the epileptic attacks.

Opening Exercises

OF THE HAHNEMANN MEDICAL COLLEGE AND HOSPITAL, SESSION 1887–88.

The Twenty-eighth Annual Winter Session of this clinical school was opened, according to the published announcement, in the hospital amphitheatre on Tuesday evening, September 20, 1887. The room was crowded with the students and their friends, the alumni of the college, preceptors and physicians, and the exercises were enlivened with songs by the Imperial Quartette.

THE ADDRESS BY THE DEAN OF THE FACULTY.

Prof. Ludlam, dean of the faculty, reminded the audience of the story of the good deacon who insisted that, in a church anniversary, it would be most fitting for the parson to "open the exercises with a few *feeble* remarks." In the absence of the president, Dr. Smith, who at that moment was representing this institution in Pittsburgh, it was his pleasant duty to entertain them with a few more or less feeble remarks. The element of time, he said, enters into all human affairs. The clergyman, the lawyer, the politician, the merchant and the manufacturer has each his own calendar. Even the doctor, subject as he is to all sorts of interruptions, must properly divide his time or he will accomplish nothing.

I have sometimes thought that if some of us who for many years have occupied the post of medical teachers were wrecked upon some solitary island, and had lost all note of the times and seasons, we should from force of habit be able to tell when the last week in September had arrived. As it is, when the cool nights come and the leaves begin to fall; when the summer holidays are ended, and those who fill the city pulpits and the pews flock to their places again; the frost and the incoming tide of travelers remind us that a crowd of medical pilgrims will soon be here, and that we must put our house in order for their reception.

It is a real pleasure to welcome those of you who have returned to your old places, and who now resume your labors under the old auspices, and with the associations which have been so agreeable in times that are past. You know what is before you, and what facilities lie in your way and await your improvement. With your comrades and your companions you will enjoy the sacred and pleasing task of reviving old memories; and with your teachers, the grateful duty of reviewing your studies and of perfecting your professional education.

Those of you who have come from other schools, and those who now find themselves in a medical college for the first time, are equally welcome. Whatever your advantages or aspirations, and whatever your intellectual fibre or equipment, you will soon find that you are at home with us, and that whatever my colleagues can do to help you forward will be most cheerfully done. It is an old axiom which holds that the strength of a chain is the strength of its weakest link. Let us all do our duty as fully and as thoroughly as possible, and the chain of interest which binds us to this institution, to the profession and to human welfare will not be easily broken.

THE INTRODUCTORY LECTURE.

BY PROF. J. B. S. KING.

Ladies and Gentlemen: A certain old woman, who had for many years kept an apple-stand on the corner, was once inveigled by designing parties into a Sunday-school, in order that she might be brought to a realizing sense of her miserable condition, unless she believed just as they did. To test her knowledge of things eternal, the superintendent asked her who made her.

She said "she didn't know." In order to put her ignorance to shame, the good man asked the same question of a pious little girl of four, who promptly responded "God."

"That is no wonder," said the old woman calmly, "I was made such a long time ago, that I can't remember who made me, but that little girl has not been made long and knows all about it."

My worthy colleagues are like the old apple-woman, they have been doctors so long that they can not remember how it feels to be a student, and I am like the pious little girl, I know all about it, and hence can sympathize with you in the labors, the triumphs, and the defeats which are a part of student life.

I am with you when the midnight coal oil is burning, at a cost of 6 cents per quart, and you poring over a dog-eared anatomy, or perhaps over a dog-eared euchre deck.

I know the deep concern with which you discover, that your trousers are undergoing rapid disintegration, owing to an almost uninterrupted contact with these luxurious opera chairs, and I am not ignorant of the redundancy and vivacity of epithet, which accompanies the painful and laborious repairing of the same, by hands more skilled in sewing incised wounds than textile fabrics.

I distinctly remember, too, the miracles of financial policy which were requisite, and the almost painful tenuity to which the funds were drawn out, in order to make both ends meet.

I have seen students who could not make even one end meet. Nor have I yet forgotten the trepidation of spirit produced by the first lectures on eyes and ears, and on chemistry, when such paralysing nouns as Dacryocystosyringokatakleisis, or Anhydro-ortho-sulphamin-benzoic acid were flung at our unhappy heads. Having then such a vivid remembrance of the time when I sat on these same benches, I may not inappropriately give some practical advice from the standpoint of one, who has just been through, what you are about to enter.

In order to compress much into little, I will give you a motto which will act as a prophylactic to many errors, as an antidote to many mistakes, and as a stimulant and tonic to study and development. You can paste it in your bonnets, wear it in your button holes, scratch it on your bed-posts, but above all store it in the invisible granaries of the brain.

My motto is "*Ars longa, vita brevis.*" It is not English, you know, but Latin, and as old as Hippocrates. "The time is short, the art is long." Few enough and short are the months, the days, the hours which you can devote to the

acquirement of this great art of healing; long, very long, is the art itself.

The time is short, therefore it behooves you not to waste it, and in my experience it is the frivolous waste of minutes that runs away with the hours.

Student John Brown has one hour, say, in which to glean some practical points from the morning lectures before the dinner-bell rings. He spends five minutes in deciding which subject to begin on and five more in getting out his books and finding the place. He now begins to read, but in two-and-one-quarter minutes discovers a smutch of dirt on his nose and must wash it off, which takes eight minutes. More time is now spent in finding his place once more and arranging himself in a comfortable position, and he is actually about to begin when he discovers a note in his pocket sent to him by another student during lecture hours. A reverie of ten minutes engendered by the note follows from which he awakens with a start, and would have begun to study in earnest, if he had not lost his place again, so he compromises by scratching his head. This makes him think of his mustache, always an object of tender solicitude, and he looks in the glass to see how it is getting on. Then, he thinks, he really must begin, and the place having been once more found he gets on swimmingly for five minutes, when he unfortunately notices it is snowing; he goes to the window to see it snow. A reverie of fifteen minutes, begotten by snow ensues, from which he is startled by the dinner bell, and John Brown marches down to feed his overworked brain.

Sixty blessed minutes have been added to the irrevocable eternity behind us, and neither one jot of knowledge nor one tittle of any kind of good has been added to that student's brain. When you have spent an hour like that, look in your hat, look at the scratches on the bedpost, and reflect that the time is too short, the art too long, for any such dawdling as that. When you study, study with all your mind, and all your soul and all your energy, and when you indulge in reveries do nothing else. The moment you attempt to mix your lucubrations on broken bones, with reveries on snow, or

mingle your antidotes to poisons with a tender solicitude concerning your mustache you make a botch of both.

The healing art is a long one, according to our text, and you will find that it will pay you very heavily to select your subjects and points for study with great care and discrimination rather than to plunge into everything helter-skelter. From neglect of this selection I suppose that of the actual time spent in study, a third part is wasted on more or less useless topics.

The lectures which you will hear in these rooms, will be, of course, the best guides as to subjects for study, but aside from that you must select largely for yourself the grain, which is to be remembered, from the chaff, which is to be rejected. Do not regard the eight different branches as eight different studies, entirely separate from each other.

Too many students look at anatomy as one thing, physiology as another thing, chemistry as another thing, and so on all through. This is a great mistake.

There is only one thing taught in these halls, and that one thing is medicine, the eight branches of which are only the eight links of a chain. The moment, for instance, you regard the spines, tubercles, ridges and processes of bone as entities, to be remembered simply for themselves, you are getting short-sighted. They are of interest only because they afford attachments for muscles and ligaments. Muscles, in themselves are barren of interest; they acquire importance only where you consider the motions which they give to other parts, and thus you are taken insensibly to the domain of physiology.

Then, again, the displacements and deformities attendant upon fractures and dislocations are due entirely to the contractions and attachments of muscles, and thus anatomy has gently pushed you into surgery. You can never hope to know much physiology, without a good knowledge of chemistry, for these two branches are twin sisters and go hand in hand. Even gynecology gets unaccountably mixed up with eyes and ears before the end of the term, as you will learn when copiopia hysterica is lightly tossed at your heads. All

through then each branch is interlaced with, and is dependent upon, and influenced by, all the others, and the best student is he who sees and appreciates this mutual dependence and relation.

If you are tempted, as you will be, to engage in college politics, I would give the same advice that Punch did to those about to marry, *i. e.*, don't! There is nothing, that I know of, that looks so big as college politics before you graduate, and I know of nothing that looks so little and so contemptible afterward unless its one of Dr. Gilman's hump-backed microbes. It wastes your time, it distracts your mind, it engenders ill-feeling and jealousy, and after all that harm, it does not pay a cent's worth of good to anybody. So if you see some good fellow, either male or female, getting off the track in that direction turn up the lapel of your coat and show him or her the motto, and tell him or her that the position sought for is too petty, too ephemeral, too little worth to distract any one's mind, for an instant from an art so long, so broad and so deep as the art of healing the sick.

A close adherence to my text will encourage you to do all your sleeping at home. I know from experience that it is a delightful thing to sleep in church with the preacher's voice buzzing in your ears like a blue-bottle fly, and it may be equally delightful here, but it does not pay as well, because you can not sleep here without losing something. I once met a doctor who knew nothing about the third stage of labor, because he had always fallen asleep at the end of the second stage.

When I assured him that there certainly was a third stage, he said he would take a week off this winter and come around to old Hahnemann to finish his labors.

I give this advice entirely for the benefit of my colleagues and not for myself, for nobody ever sleeps during a lecture on chemistry. If my persuasive eloquence is insufficient for the purpose, and I notice some one slumbering in the shadow of the right-hand or of the left-hand columns, I immediately make an explosion of so thunderous a nature that it almost awakens the dead in the upper chambers. The chemical art is too long and too loud for any one to indulge in sleep during its exposition. * * * * * * * *

In regard to methods of study, I believe very thoroughly in memorizing words, to a certain limited extent. I believe in learning by heart crisp, brief correct definitions of all important subjects. It will make your knowledge exact and clear, it will make your ideas clean-cut, and you will be able to answer questions readily and in a direct manner. I was present once when a doctor, on the witness stand, was asked what tetanus was, and although he undoubtedly knew a great deal about tetanus, for the life of him he could not tell just what it was. When I witnessed his painful embarassment, I felt more than ever the value of the exact knowledge produced by memorizing definitions. At that moment I believe he would have given his horse and buggy if he could have furnished to the court a correct definition of tetanus.

The surgeon Gross, by the way, was an excellent definer, and you will find the very best definitions of many subjects in his surgery. Having gone so far, you must stop memorizing words, and instead, study ideas. For instance: after having learned what tetanus or inflammation or suppuration is, in the words of Gross, or other authority, you study and learn a great deal about these subjects, their cause, symptoms, treatment, etc., without memorizing or trying to memorize a single word.

I do not know any one thing that will help you more than what I have just said. It is an excellent plan, to frequently test the knowledge you have gained, by trying to write out or repeat to your room-mate the gist of some subject. If you can do that you have gained something definite; all other kind of knowledge, knowledge that you know, but can not express, is vague, misty, of little worth. From this you will see the great value of quizzing. The best kind of a room-mate to have is one of those walking interrogation points who are willing and waiting to quiz you on all possible occasions, while you are shaving, while you are eating, while you are dressing.

My room-mate woke me up once at 3 o'clock in the morning to ask me the nerve supply of the transversus pedis. Such fellows are sometimes a nuisance, but in the long run you gain by their ceaseless fusillade of questions.

It is almost impossible for any one to go through the severe

study, the confinement, the sedentary life of a winter course of medical study and maintain full health without some hygienic measures.

If the chair of hygiene and sanitary science will forgive me, I will only this once transgress on its boundaries.

I advise you to board not too near the college, but rather at some little distance from it, so that whether you feel like it or not, you will get daily walks, and fresh air. In this way you will keep your lungs and stomach in good condition, and if you do that, you need not trouble yourself about your brain, it will take care of itself.

I need not caution you against high living, your landlady will take care of that; if you board where I did, look out for poor man's gout.

Once in a while, not too often, drop medicine and all its belongings completely from your mind, and go to the theater or some other place of amusement.

The freshness and vigor with which you will go back to your studies will amply repay you if the play does not. When the term is drawing to a close, and you are beginning to survey, with mingled feelings of hope and fear, the time which tries men's souls, called examination week, do not allow your anxiety to get the better of your honesty, and come to the trial with an abundance of that, which I have sometimes heard called "soap," and sometimes "ponies," but which consists really of *sub rosa* aids and jogs to the memory in the shape of thumb-nail notes, essays on the cuffs, etc., on subject's likely to form a part of the examination.

Let everything be honest and above board. Conscientious study and hard work beat all the "soap" and "ponies" in existence, and leave a clean fragrance of honesty and worth about your little piece of sheepskin, that you will be grateful for as long as you possess it. Having once attained this precious document, do not imagine that you have mastered the art of healing, and that nothing more remains to be done, except to give medicine to sick people and see them get well.

The time has been very short, the art is still very long, and the best that can be expected from the longest and most thorough college course, is the acquirement of certain rudiments to begin practice with, and a good knowledge of how to study in the future.

When your hair is silvered and your brow wrinkled, when you are drawing near to the last milestone of life, after having spent forty years, perhaps, in the practice of your profession, you will still be willing to admit, if you are honest, that the time is short, the art long.

Miscellaneous Items.

The "old Hahnemann" opened auspiciously on the evening of September 20.——Dr. D. S. Smith has returned from Pittsburgh and the semi-centennial of Homœopathy, where he glorified the great West and its busy workers.——Dr. Frederic Stevens will remain in Pasadena, Cal., in association with Dr. Macomber.——The editor of THE CLINIQUE has been gratified in his old age by friendly calls from Drs. Charles Woodhouse, of Rutland, Vt., W. Webster, of Dayton, Ohio, Bro. Allen, of the *Medical Advance*, and a host of other good fellows who were passing through town.——Dr. J. P. Cobb, 3628 Indiana Avenue, has two pleasant rooms suitable for a doctor or a dentist, for rent.——The Houston, Texas, papers notice the death of Dr. Mary C. Shults, class of '85.——Dr. Eugene Hubbell and Cora M. Cummings were married, with our hearty concurrence, in Clearwater, Minn., September 21.——*On dit* that the members of the International Medical Congress at its late meeting "duly absorbed and enthusiastically appropriated" 1,200 bottles of Mumm's Dry Sec champagne.——The brethren in St. Paul did themselves and the "old Hahnemann" great honor recently in tendering a dinner to our distinguished colleague, Prof. Vilas. There is an active group of *alumnæ* in that city who do not forget their *alma mater*.——Those who are interested in the study of such cases as reported by Dr. Skiles at the last meeting of the Clinical Society will find Dr. Sayres' original paper in the *Transactions of the American Medical Association* for 1875, that of Dr. Otis in the *American Journal of Obstetrics*, Vol. VII, No. 4, 1878, and Hamilton's famous essay in the *American Journal of the Medical Sciences* for October, 1876.——"How to study Materia Medica;" three lectures by Prof. C. Wesselhœft, is a really valuable publication issued by Otis Clapp & Son, of Boston.——The reception, which, as it has been for so many years, was a part of the college opening for this term, was a very enjoyable affair.——Prof. Fellows, chairman of the bureau of nervous diseases will report at the November meeting of the Clinical Society.——The Surgical Clinics, by Profs. Hall and Shears, are very full, and exceedingly practical.——Ditto all the rest of them.